City of FRAMINGHAM MA SOLAR PERMITTING CHECKLIST



Date: 4/5/2019

The following checklist is intended to guide you through the process of obtaining the necessary building and electrical permits to implement a solar energy system. Should you have any questions regarding the process at any point, please contact the Inspectional Services Division at 508-532-5500.

This application is divided in two sections based on the site's classification. The process for residential applications can be found on pages 1-2 and the process for commercial applications can be found on pages 2-4. General inspection information can be found on page 5. For information about the zoning of your site, check the City's online <u>MapGeo</u>.

RESIDENTIAL SOLAR PROJECTS

YOUR FIRST STEPS

Please check (\checkmark) the boxes to verify conformance with the following cr	riteria:
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Does your project conform to the regulations of your Zoning District? Have
you checked the City's Zoning Bylaws to determine if there are any setbacks,
height restrictions, or other requirements that are applicable to your project? You
will be required to provide certification of recording and a copy of a variance or special permit if your project does not otherwise meet the zoning requirements.
Is the project situated on property that has been designated as historic? If
your home has been designated as historical by the Historic District Commission
(HDC), you will need to submit an application for Historic District Commission
Review and receive approval for the project.
Is the project located near wetlands? If so, it may require a permit from the Conservation Commission before the application can be processed.

Before submitting your application, you should discuss your project with the Director / Building Commissioner if you have any questions or concerns.

COMPLETING THE APPLICATION PROCESS

All solar PV projects in the City of Framingham require the issuance of a building permit and electrical permit from the Inspectional Services Division. In order for your permit applications to be reviewed, they must be complete with the following provided:

Building Permit

- □ Residential Building Permit (1 2 Family Dwelling Only)
 - Roof-mounted solar PV systems should be identified as an "Alteration"
 - Ground-mounted solar PV systems should be identified as "Other"

SOLAR PERMITTING CHECKLIST

	Worker's Compensation Insurance Affidavit and Certificate		
	Debris Disposal Affidavit		
	Construction Supervisor's License		
	Certification of recording and copy of variances/special permit		
	Home Improvement Contractor Registration (if applicable)		
	Two (2) hard copies (to be submitted at the office) and one (1) electronic copy (to		
	be emailed to rn@framinghamma.gov) of the plan set, including:		
	 Two (2) copies of the site plan 		
	 Two (2) sets of building plans (if roof-mounted) 		
	□ Proof of Property and Liability Insurance		
□ Structural review from a Massachusetts Certified Engineer (if roof-mounted			
	 Must be submitted as a signed document containing calculations certifying 		
	that the existing structure is capable of supporting the solar energy system		
	in addition to required snow loads as specified in the state building code.		
Electr	rical Permit		
	Application for Permit to Perform Electrical Work		
	Electrical diagram		
	o A one- or three-line electrical diagram detailing the installation, associated		
	components, and electrical interconnection methods, with all National		
	Electrical Code compliant disconnects and overcurrent devices.		
	Specification sheets for equipment from manufacturer		
	 Documentation of the major system components to be used, including the 		

DETERMINING PERMITTING FEES

Fees for building and electrical permits are determined based on the value of the construction project. The following fees apply to building and electrical permits for residential solar projects:

of oils if greater than fifty (50) gallons used in equipment.

PV panels, mounting system, and inverter, and environmental containment

Building Permit	Electrical Permit
\$15 per \$1,000 of Actual	\$18 per \$1000 or Fraction Thereof of
Construction Cost	Electrical Fair Valuation
(\$50 Minimum)	(\$75 Minimum)

Fees can be paid in person at the Inspectional Services Division by cash or check. Checks should be addressed to the "City of Framingham".

Date: 4/16/2019

COMMERCIAL SOLAR PROJECTS

YOUR FIRST STEPS

Please check (\checkmark) the boxes to verify conformance with the following criteria: □ Does your project conform to the regulations of your Zoning District? Have you checked the City's Zoning Bylaws to determine if there are any setbacks, height restrictions, or other requirements that are applicable to your project? You will be required to provide certification of recording and a copy of a variance or special permit if your project does not otherwise meet the zoning requirements. Is your project a commercial large-scale ground-mounted solar installation? Your project may need to be located outside of all residential districts and in one of the Solar Overlay Districts as indicated in section III.F of the Zoning By-law and on the City's Zoning Map. In addition, your project will need to go through site plan review by the Planning Board as specified in section VI.F of the Zoning By-law. □ Is the project situated on property that has been designated as historic? If your property has been designated as historical by the Historic District Commission (HDC), you will need to submit an application for Historic District Commission Review and receive approval for the project. ☐ Is the project located near wetlands? If so, it may require a permit from the Conservation Commission before the application can be processed. ☐ Will the project involve land use activities regulated by the Land Disturbance Bylaw (Section V.F)? If so, you may need to receive a special permit for the project from the Planning Board prior to submitting building or electrical permit applications. Before submitting your application, you should discuss your project with the Director / Building Commissioner if you have any questions or concerns.

COMPLETING THE APPLICATION PROCESS

All solar PV projects in the City of Framingham require the issuance of a building permit and electrical permit from the Inspectional Services Division. In order for the application to be reviewed, it must be complete with the following provided:

Building Permit

Commercial (Three Family -	-)

- Roof-mounted solar PV systems should be identified as "Alteration"
- o Ground-mounted solar PV systems should be identified as "Other"
- □ Worker's Compensation Insurance Affidavit and Certificate

	Debris Disposal Affidavit		
	Construction Supervisor's License		
	Certification of recording and copy of variances/special permit		
	Construction Control Affidavit		
	□ Home Improvement Contractor Registration (if applicable)		
	be emailed to rn@framinghamma.gov) of the plan set, including:		
	 Two (2) copies of the site plan 		
	 Three (3) sets of building plans (if roof-mounted) 		
	□ Proof of Property and Liability Insurance		
	Structural review from a Massachusetts Certified Engineer (if roof-mounted) O Must be submitted as a signed document containing calculations certifying that the existing structure is capable of supporting the solar energy system in addition to required snow loads as specified in the state building code.		
Electr	rical Permit		
	Application for Permit to Perform Electrical Work		
	 A one- or three-line electrical diagram detailing the installation, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and overcurrent devices. 		
	Specification sheets for equipment from manufacturer		

DETERMINING PERMITTING FEES

Fees for building and electrical permits are determined by the value of the construction project. The following fees apply to building and electrical permits for commercial solar projects:

of oils if greater than fifty (50) gallons used in equipment.

 Documentation of the major system components to be used, including the PV panels, mounting system, and inverter, and environmental containment

Building Permit	Electrical Permit
\$15 per \$1,000 of Actual	\$22 per \$1000 or Fraction Thereof of
Construction Cost	Electrical Fair Valuation
(\$100 Minimum)	(\$100 Minimum)

Fees can be paid in person at the Inspectional Services Division by cash or check. Checks should be addressed to the "City of Framingham".

GETTING INSPECTIONS

All solar energy systems must be inspected as part of the process to obtain building and electrical permit applications. Solar photovoltaic (PV) components must be installed by Massachusetts-licensed electricians per the ratio requirements specified in M.G.L. C. 141 § 1.

To schedule an inspection, contact the Inspectional Services Division at 508-532-5500 any weekday from 8:30 A.M. to 9:30 A.M. and from 4:00 P.M. to 5:00 P.M.

Contact information for inspectors can be found on the municipal website under the <u>Inspectional Services webpage</u>.

To ensure that a solar energy system will meet requirements of the state building code, installers should be attentive to the inverter, array, as well as junction boxes and enclosures of the system as this is where a number of issues can occur. For example, solar array equipment should be grounded and mechanical connections should be solid to ensure safety. The Department of Energy Resources identifies that common code violations in solar energy systems include missing power source directories on equipment (NEC 705.10/690.56), array conductors that are not supported or protected (NEC 338.10(B) (4)/334.30/300.4), roof penetrations that are not properly flashed (780 CMR 5903.2), and conductive materials enclosing conductors that are not bonded (NEC 250.4). To minimize issues during the inspection process, installers should be careful to ensure that the solar energy system meets the plans provided as part of its permit applications.

Rough and final inspections are typically needed for all solar energy system installations. In total, roof-mounted solar energy systems are typically inspected two times by electrical inspection staff and one to two times by building inspection staff depending on whether structural changes are needed to accommodate the solar panels. Ground-mounted solar installations are inspected two times by electrical inspection staff and two times by building inspection staff.

Whenever staff schedules permit, inspection staff will work to minimize the number of inspection events through coordination of building and electrical site visits.

Barring special circumstances, inspections should be available on the same day or the next day after an inspection request has been made. The Inspectional Services Division works to ensure that all solar PV inspections are completed within 5 business days after initial inspection request.